



Work permits needed by *all* foreign students

A memorandum on the subject of foreign students' work permits has been sent to all principals, deans and directors by Prof. Jill K. Conway, Vice-President, Internal Affairs.

Basically, the memorandum warns that after March 31, 1973, it will be illegal for any employer to knowingly have in his employ anyone who is not a Canadian citizen or landed immigrant and who does not possess an employment visa (work permit) or other written authorization to work from an immigration officer.

Employment visas will normally be obtained in the following manner: The Manpower office will determine whether or not there are any qualified Canadian citizens or landed immigrants available for the position, if it certifies that there are no Canadians or landed immigrants available, the Immigration office is then required to give final approval. This procedure must be followed by all non-citizens and non-immigrants except foreign students in certain categories. These students are not required to obtain the certification of the Manpower office before taking a job but they must still present themselves to the Immigration office, which will issue an employment visa. The categories of exemption from obtaining certification from the Manpower Office are as follows: students from foreign universities or technical institutions coming for temporary employment and sponsored by the International Association for Students of Economics and Commerce by the International Association for Exchange of Students for Technical Experience; special program students under the sponsorship of the Canadian International Development Agency; foreign students when it is proven that the intended employment forms an essential and integral part of their course of study (see below); post-graduate foreign students engaged by a Canadian university as a teacher, professor, or visiting lecturer. (Important: This last category of exemption includes teaching assistants.)

It should also be noted that research students holding fellowships are not employed and are therefore not subject to the regulations. Enquiries about compliance should be directed to Robert Brown, Director of Personnel.

Foreign Students' Work Permits
Any non-Canadian or non-immigrant must obtain an employment visa before taking a job of *any kind*. This means that foreign students will probably have a difficult time obtaining summer jobs unless they can obtain exemption from the necessity of getting Manpower office certification under the category of taking "employment which forms an essential and integral part of their course of study". Therefore, departments are urged to give every possible assistance to foreign students whose job search would be facilitated under the category of taking "employment which forms an essential and integral part of their course of study".

The memorandum also says that no employer is precluded under the regulations from offering employment to non-citizens or non-immigrants conditional upon the individuals obtaining the necessary authorization.

UTFA annual meeting
The U of T Faculty Association's annual general meeting will be held on Thursday, April 5 in the Medical Sciences auditorium (2158) at 4.10 p.m. The president, Prof. S. M. Uzumeri, urges faculty members to attend.



DAVID PRIDDLE, supervisor of instruments in Department of Chemistry, who has been elected president of U of T Staff Association. Other officers are: first vice-president, Charlotte Turnbull, History; second vice-president, William Morrison, Civil Engineering; secretary, Prudence Tracy, U of T Press, and treasurer, Ian Christie, Computer Centre.

New Program debate begins with criticism

The report of the Presidential Advisory Committee to Review the New Program in Arts and Science was before the Faculty Council's General Committee for discussion at a special meeting last Monday.

Prof. Kenneth Bryden, chairman of the General Committee, explained that the steering committee had arranged for the presence of members of the Advisory Committee to answer questions, after an introductory statement by the committee chairman, Prof. D. E. Berlyne. Then the recommendations would be dealt with.

Prof. Berlyne told the General Committee that as chairman he had maintained a position of strict neutrality, rather like that of the Speaker of the House of Commons, and as a result, of all the members of the committee, he had had the least influence upon the construction of the recommendations.

The report had been an enormous task to complete in a limited time, he said. But the committee had worked together in harmony and had never split on faculty-student lines.

Prof. James B. Conacher was critical of the manner in which the steering committee had arranged for the report to be considered by the General Committee. He said there should be a general discussion before the recom-

(See page 2, col. 3)

Centennial lecture on aerospace studies

The next lecture in a series of eight celebrating the centennial of the Faculty of Applied Science and Engineering and its predecessor, the School of Practical Science, will be given on Wednesday, April 4 in Convocation Hall at 1 p.m. by Prof. G. N. Patterson. The subject will be "Aerospace Engineering - The Next Hundred Years".

Dr. Patterson is the Director at the Institute for Aerospace Studies at U of T.

Study of women faculty is reported to be going well

The following statement has been issued by Dr. Peter Meincke, Vice-President:

The initial work of the committee on employment conditions of full-time women faculty is progressing reasonably well. Questionnaires based on material supplied by a group of concerned women faculty have been sent to all full-time women faculty members. Over 70% of these have been returned to date. The Principals, Deans and Directors have also been asked to provide, either themselves or through their chairmen, certain financial and other information. All this information is coded so that individuals and departments are not identified in the discussion of the committee.

So far the committee has considered about 40% of the cases and has concluded its investigation in about 70% of those cases it has considered. In many instances, it will probably be necessary to ask for clarification of certain points. However, there are some cases where a fuller investigation of the apparent anomaly will be necessary before the committee will have enough information on which to base a recommendation.

The committee has chosen the method of peer identification in determining whether or not a salary anomaly exists. Both the department chairman and the woman faculty member have been asked to submit the names of a male peer, that is a male colleague whose qualifications and work experience are most like that of the woman faculty member. In many cases, it has been very difficult to find an exact peer and it has been neces-

sary to choose male colleagues whose qualifications and work experience are only close to those of the woman faculty member. In such cases, we have asked for two or more peers to be selected. If the salaries of the peers chosen by the chairman and the woman faculty member are reasonably close to the salary of that woman faculty member, then the committee concludes that no salary anomaly exists in that case. If the peers are identical but are paid substantially more than the woman faculty member, the committee decides on an amount to recommend to the Vice-President and Provost, for the correction of the anomaly in the 1973-74 estimates. If there is a marked difference between the peer chosen by the woman faculty member and the peer chosen by the chairman of the department, then a questionnaire is administered to a number of male colleagues in the department (not just chosen peers) in order to establish a peer. Confidentiality will be maintained but in some cases it may be necessary for the woman faculty member and/or the chairman to meet with the committee.

It has been pointed out to the committee on several occasions that it should also be considering cases of potential anomalies in the case of male faculty, as well as part time faculty and non-academic staff. The terms of reference of the committee included only full time women faculty because it was necessary to start with a limited task in order to arrive at some recommendations this year. A complete review would take much longer, and it would have been impossible to make any recommendations this year.

12 will receive honorary LL.Ds at May and June Convocations

Twelve honorary degrees of Doctor of Laws will be conferred at nine of the 12 Convocations to be held this May and June. The honorary graduates are:

Douglas Edward Cannell, M.B., B.Sc. (Medicine), U of T; retired professor and chairman, Department of Obstetrics and Gynaecology, Faculty of Medicine; now medical director, Ontario Cancer Treatment and Research Foundation. May 28, 2.30 p.m.

Mrs. R. G. (Kay) Riddell, B.A. (Vice, U of T) for 20 years overseas student adviser at U of T, first director of the International Student Centre. May 29, 2.30 p.m.

Camille A. Dagnanis, Officer of the Order of Canada, member of National Research Council, chairman of the Comité d'Expertise Sciences Appliquées of the Quebec Ministry of Education, professional engineer, president of SNC Limited, Montreal. June 1, 2.00 p.m.

John T. Dymond, B.A.Sc. (U of T); Engineering Alumni Medal, 1969; for 31 years chief engineer, Trans Canada Airlines and its successor, Air Canada. June 1, 2.30 p.m.

Elizabeth Muriel Gregory MacGill, B.A.Sc., 1927, U of T (one of the first women graduates in Engineering); first woman to graduate in the U.S.A. as an aeronautical engineer; during the Second World War designed the "Chippmunk", a special duty trainer aircraft and was in charge of engineering in production of Hawker Hurricanes in Canada; since 1944 consultant in aeronautical engineering. June 1, 2.30 p.m.

(The Convocations on June 1 are for graduates of the Faculty of Applied Science and Engineering, which is celebrating its Centennial this year.)

Walter Lockhart Gordon, member, Board of Governors, U of T, 1945-1969; chairman, Royal Commission on Canada's Economic Prospects, 1955; M.P. and member of the federal cabinet, as Minister of Finance and President of the Privy Council, 1962-1968. June 4, 10.30 a.m.

Robert D. C. Finch, B.A. (U.C.), retired professor of French, poet, painter, scholarly musician, winner of the Governor General's award for literature twice and of the Lorne Pierce Medal. June 5, 10.30 a.m.

Farley Mowat, B.A. (U of T), author specializing in subjects related to the Canadian North and conservation, winner of the Governor General's Award. June 5, 2.30 p.m.

Larkin Kerwin, physicist, Secretary-General of the International Union of Pure and Applied Physics; recently appointed the first non-clerical Rector of Laval University. June 6, 2.30 p.m.

R. Gordon Robertson, M.A. (U of T), public servant who, among other positions, has been Deputy Minister of Northern Affairs and Natural Resources and Commissioner of the Northwest Territories; now Clerk of the Privy Council and Secretary to the Cabinet at Ottawa. June 7, 2.30 p.m.

Neil J. McKinnon, member, Board of Governors, U of T, 1958-69; co-chairman, U of T National Fund, 1959; chairman, Canadian Imperial Bank of Commerce. June 8, 2.30 p.m.

Hugh Le Caine, nuclear physicist who helped establish at U of T the first electronic music studio in Canada, composer of electronic music and one of the world's foremost designers of electronic musical instruments. June 11, 2.30 p.m.

COMING EVENTS

MARCH

30 FRIDAY

Colloquium
Chemistry

Lectures
Biology

Labour

Seminar
Environment

Theatre

Music

31 SATURDAY

Meeting
Clinical research

APRIL

1 SUNDAY

Music

2 MONDAY

Lecture
Housing

Music

Meeting

3 TUESDAY

Lectures
Law

Medicine

Mathematics

Seminars
Medicine

Sociology

Colloquium
Mathematics

Music

4 WEDNESDAY

Lectures
Medicine

Physiology

Engineering

Seminars
Editor of Nature

Mathematics

Inaugural Address
Management

Music

5 THURSDAY

Meeting

Lectures
Culture

Medicine

Management

Archaeology

"Molecular Energy Transfer in Chemical Lasers". Prof. T. A. Cool, Cornell University, 155 Lash Miller Chemical Laboratories, 4 p.m. (Chemistry)

"Small Systems of Nerve Cells". Dr. Allen I. Selverston, Department of Biology, University of California at San Diego, 432 Ramsay Wright Zoological Laboratories, 12 noon. (SGS and Zoology)

"The Theme of Workers' Control of Industry in the British Labour Movement". Robin Blackburn, editorial board member, *New Left Review*, 229 Borden Building, 2 p.m. Seminar follows (SGS and Sociology)

"Economic Organization of Refugee Collection Services". Prof. Dennis Young, Program for Urban and Policy Sciences, SUNY, Stony Brook, 143 Ramsey Wright Laboratories, 3 p.m. (Urban and Community Studies)

"The Towneley Crucifixion" by Poculi Ludique Societas, Royal Ontario Museum, March 30 and 31 at 6 p.m. Free

9th Annual Symposium for student composers, Concert Hall, Edward Johnson Building. For information call 928-3771, March 30, 31 and April 1. (Music)

Annual meeting of the Clinical Research Society of Toronto. Inn on the Park, 9 a.m.-5 p.m. Two simultaneous sessions of papers and luncheon

Hart House Chorus with orchestra (Bernstein and Mozart), Great Hall, 9 p.m. Free - tickets available from Hall Porter (Hart House Music Committee)

"Experiences in Housing". Irving Grossman, Toronto architect, 103 Faculty Building, 8:30 p.m. (Architecture)

Organ recital by Dr. Charles Peaker, with Harry McCarthy, baritone. Convocation Hall, 5:05 p.m.

Toronto recital debut of Prof. Stephen Chenette, trumpet, Concert Hall, Edward Johnson Building, 8:15 p.m. Free. (Music)

Special meeting held by the General Committee to consider the Beryle report, 3153 Medical Sciences Building, 4-6 p.m. (General Committee)

The 5th Annual Cecil A. Wright Memorial Lecture - "Reflections on Law Reforming". Prof. L. C. B. Gower, Vice-Chancellor, University of Southampton, and formerly a Law Commissioner. Moot Court, Faculty of Law, 4 p.m. (Law)

"Drug Actions on Sodium Transport in Single Muscle Fibres". Dr. E. E. Bittar, Department of Physiology, University of Wisconsin, 5227 Medical Science Building, 4 p.m. (SGS and Biochemistry)

"Asymptotic Expansions". Dr. Joseph B. Keller, Courant Institute, New York University, 2117 Sidney Smith Hall, 4:10 p.m. (SGS and Mathematics)

"Possible DNA Changes in the Brain During Learning". Dr. S. Retinis, Department of Psychology, York University, 4279 Medical Sciences Building, 4 p.m. (Pharmacology)

"Science and Critique: Toward a Communication Theory of Society". Prof. Albrecht Wellmer, Graduate Faculty, New School for Social Research, 229 Borden Building, Tuesday at 10 a.m. and 2 p.m., Wednesday, April 4, at 10 a.m. (Sociology)

"Mathematical Problems in Athletics and Biology". Joseph B. Keller, New York University, 2117 Sidney Smith Hall, 4:10 p.m. (Mathematics)

Belva Spidel, soprano, Music Room, Hart House, 1 p.m. (Hart House Music Committee) Free

"Toxoplasmosis - Recent Advances". Dr. J. K. Frenkel, Department of Pathology and Oncology, University of Kansas, 103 School of Hygiene, 4 p.m. (SGS and Hygiene)

"Physiology of Diving". Dr. Karl E. Schaeffer, Naval Submarine Medical Research Laboratory, Naval Submarine Base, New London Groton, Conn. 432 Ramsay Wright Zoological Laboratories, 4 p.m. (SGS and Zoology)

Centennial lecture series - "Aerospace Engineering - The Next Hundred Years". Prof. G. N. Patterson, Institute for Aerospace Studies, Convocation Hall, 1 p.m. (Applied Science and Engineering)

"Some Further Thoughts on the Doomsday Syndrome". John Maddox, Editor of the British Scientific Journal *Nature*, Upper Library, Massey College, 3 p.m. (International Relations Committee, ISP)

"Asymptotic Expansions". Dr. Joseph B. Keller, 1072 Sidney Smith Hall, 4:10 p.m. (SGS and Mathematics)

Prof. Robert J. House will give his inaugural address "The Role of the Management Faculty in Modern Society" to mark the establishment of the Shell Chair in Organizational Behaviour and Development, funded by Shell Canada, Room N-302, OISE, 252 Bloor Street West, 4:30-5:30 p.m. (Management Studies)

An evening of music for woodwinds, Concert Hall, Edward Johnson Building, 8:15 p.m. Free. (Music)

Anita Brown, pianist, Great Hall, Hart House, 8:30 p.m. (Hart House Music Committee)

U of T Faculty Association's annual general meeting, Medical Sciences auditorium (2158), 4:10 p.m.

"Society and Culture Series: 'Universities and Culture'. David Sikos, Assistant Dean, Faculty of Fine Arts, York U, ROM Theatre, 8:30 p.m. Free.

"Problems in Toxoplasmosis". Dr. J. K. Frenkel, 235 School of Hygiene, 2 p.m. (SGS and Hygiene)

"Identifying Managerial Talent: Where Do We Go from Here?" Edwin E. Chiselli, professor emeritus, University of California, 7th Floor Conference Room, 246 Bloor St. West, 3 p.m. (SGS and Management Studies)

"Athenian Sun-disc Temple at Thebes". Prof. Donald B. Redford, Lecture Room, McLaughlin Planetarium, 4:30 p.m. (Archaeological Institute of America, Toronto Society)

5 THURSDAY

Biometrics

Linguistics

Colloquium
Physics

Music

6 FRIDAY

Lectures
Science

Library Science

Africa

Seminars
Biology

India library

Colloquium
Chemistry

Party

9 MONDAY

Lecture
Environmental design

Workshop
Business

Colloquium
Mathematics

Music

10 TUESDAY

Colloquium
Mathematics

Music

11 WEDNESDAY

Seminar
Court & Trials

Lecture
Luther

Music

12 THURSDAY

Lecture
Linguistics

Colloquium
Physics

Music

"A Fresh Look at Covariance". Dr. S. R. Searle, Cornell University, 3153 Medical Sciences Building, 10 a.m. (Biometrics)

"Pre-suppositions in a Transformational Grammar". Prof. David Lightfoot, McGill University, Seminar room, 47 Queen's Park Cres. East, 3:15 p.m. (Linguistic Studies)

"Nuclei, Nucleons and Nuts". Prof. P. Kirby, 102 McLennan Physical Laboratories, 4:10 p.m. (Physics)

Thursday afternoon series, Faculty of Music student ensembles recital, Concert Hall, Edward Johnson Building, 2:10 p.m. Free. (Music)

The Cleveland String Quartet, Concert Hall, Edward Johnson Building, 8:30 p.m. Tickets \$4.00, Student \$2.00. (Music)

Alex Buchnea, baritone, Music Room, Hart House, 1 p.m. (Hart House Music Committee) Free

"The Origin of Operational Research". Harold Lardner, O.B.E. 203 McLennan Physical Laboratories, 12:10 p.m. (Varsity Fund, SGS and IHSTP)

Lecture by Dr. Jesse Shera, Dean Emeritus, School of Library Science, Case Western Reserve University, Lecture Theatre, 140 St. George St. 8 p.m. (Library Science)

"Elite Circulation in North Africa". Prof. I. William Zartman, chairman, Department of Politics, New York University, Music Room, Hart House, 11 a.m. (Islamic Studies)

"Induction of Glutamine Synthetase by Cortisol in the Chick Embryo Retina: Immunoprecipitation of Polysomes for the Enzyme". Dr. P. K. Sarkar, Department of Biology, University of Chicago, 417 Best Institute, 2 p.m. (Banting and Best)

"The History, Resources, Organization and Future Acquisition Plans of the India Office Library. Miss Joan Lancaster, Librarian and Keeper, India Office Library, Upper Library, Massey College, 2-4 p.m. (South Asian Studies Committee, ISP)

"Concerted and Stepwise Mechanisms for Cycloaddition". Prof. P. D. Bartlett, Harvard University, 15 Lash Miller Chemical Laboratories, 4 p.m. (Chemistry)

Faculty Club wine & cheese party, 8 to 10:30 p.m.

"Some Human Considerations of Environmental Design". Prof. Kiyoaki Izumi, School of Urban and Regional Planning, University of Waterloo, 103, 230 College St, 8:30 p.m. (Architecture)

Capital Markets Workshop - "Risk Investment Strategy and the Long-run Rates of Return in NYSE Common Stock". Prof. Irwin Friend, Rodney L. White Center for Financial Research, University of Pennsylvania, the Wharton School, Conference Room, 7th floor, 246 Bloor St. W. 2 p.m. (Management Studies)

"Some Geometric Problems on Stein Manifolds". Prof. Phillip A. Griffiths, Harvard University, 2117 Sidney Smith Hall, 4:10 p.m. (Mathematics)

Organ recital by Olive Strand, Convocation Hall, 5:05 p.m.

"On Holomorphic Mappings". Prof. Phillip A. Griffiths, 2117 Sidney Smith Hall, 4:10 p.m. (Mathematics)

June Bilett, soprano, Music Room, Hart House, 4 p.m. (Hart House Music Committee) Free

"Social Roles in the Courtroom Drama". Prof. James Giffen, Falconer Hall, 12:30 to 2 p.m. (Law)

"Martin Luther - A Reassessment". Prof. Harry J. McSorley, Carr Auditorium, St. Michael's Hospital, 8 p.m.

Classical Brass, Great Hall, Hart House, 8:30 p.m. (Hart House Music Committee)

"Do We Need Decomposition in Phonology?" Prof. Yves Charles Morin, Université de Montréal, Seminar room, 47 Queen's Park Cres. East, 3:15 p.m. (Linguistic Studies)

"Liquid Crystals". Prof. A. Arrott, Simon Fraser University, 102 McLennan Physical Laboratories, 4:10 p.m. (Physics)

Thursday afternoon series, Faculty of Music student ensembles recital, Concert Hall, Edward Johnson Building, 2:10 p.m. Free. (Music)

New Program debate has begun

(Continued from page 1)

mentations were taken up. He pointed out that the more than 200 appendices - copies of briefs to the committee and research papers commissioned by the committee had not been read by members of the General Committee and the information therein was necessary for a proper understanding of the reasoning behind the recommendations.

Prof. Bryden replied that he intended to regard Recommendation No. 1 (the proposal that four distinct types of undergraduate programs be recognized) as a topic sufficiently broad to permit a wide-ranging discussion of the report in general.

Prof. Michael Marrus also objected to the absence of the supporting documents and complained that insufficient time had been permitted for a study of the report before it was presented to the General Committee. He called it "in essence a secret report".

Prof. Beryle said that the appendices were too voluminous to circulate. The three sets for the President had been taken to his office in a large suitcase. They could be seen in the University library. Asked about the way in which his committee had compared the recommendations of the Macpherson Committee report (which led to the present New Program) with those now offered, Prof. Beryle said the Macpherson in-

quiry was quite different from the one just completed. "Our committee was not another Macpherson committee," he said, "and my role was quite different from that of Prof. Macpherson".

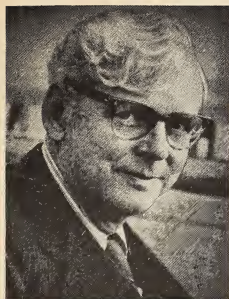
Dean Robert A. Greene, who had asked the General Committee for his report on the report, said that what the General Committee thought would have considerable weight with those responsible for its implementation. David Laughton, student member, asked who would be responsible for implementation. Prof. Bryden said that in his opinion action would lie, firstly, with the President, who had instituted the committee, and, finally, with the Governing Council.

On a show of hands, the General Committee voted to ask that the results of questionnaires used by the investigating committee in its work be made available and asked for a list of all reports and documents generated by that committee. But a motion by Prof. Donald Chant that the General Committee not vote on any of the recommendations until the questionnaires were available resulted in a tie - 39 for, 39 against - whereupon Prof. Bryden said it was defeated.

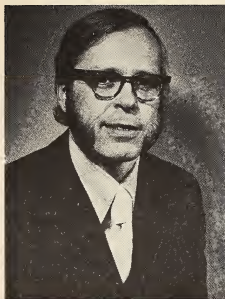
Discussion of the report will be continued at another special meeting on Monday, April 2, at 4:10 p.m. in Room 3153, Medical Sciences Building.

9 new Councillors elected and 4 are returned

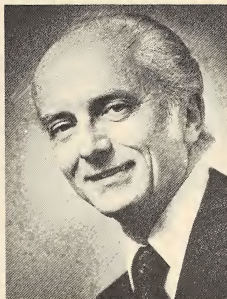
U OF T TEACHING STAFF ELECTS FOUR MEMBERS TO THE GOVERNING COUNCIL, ONE OF THEM CHOSEN BY ACCLAMATION



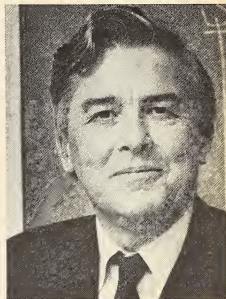
A. Murray Hunt (acclamation)



Gary Thaler



Victor Graham



John C. Laidlaw (2nd term)

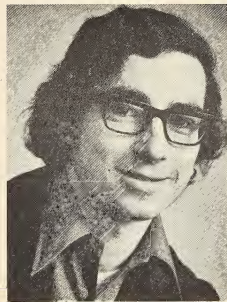
FULL-TIME UNDERGRADUATES - CONSTITUENCY I



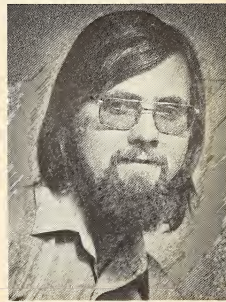
Gordon Barnes



Howard Levitt



Aron Goldberg (2nd term)



Charles Vickery

FULL-TIME UNDERGRADUATES - CONSTITUENCY II

2 re-elected, 1 elected as alumni members of Governing Council

The Alumni College of Electors on Tuesday announced the re-election of Keith C. Hendrick and James H. Joyce to the Governing Council for terms to run until June 30, 1976.

The College also reported the election of Harry John Riva to the Council, to serve from May 18 this year until June 30, 1975. Mr. Riva will hold the office on Council held by Walter J. MacNeill, whose resignation, effective May 17, has been accepted with regret. Mr. MacNeill is moving to England in June.

Harry Riva, M.B.A., University of Toronto 1969, is an engineer and a lawyer. He has a diploma in electrical engineering from the Royal Military College, his Bachelor of Science degree in electrical engineering from the University of Saskatchewan, and an LL.B. from Osgoode Hall Law School. Mr. Riva, who practised engineering from 1961 to 1964, is now with the Toronto law firm of Tory, Tory, Deslauriers & Binington.

The new Councillor is a director of the U of T Alumni Association, a director and officer of the Faculty of Management Studies Alumni Association, and is active in committee work in both organizations.

(The announcement of the alumni election result was too late for the publication of photographs of the new Councillors in this issue.)

ADMINISTRATIVE STAFF



Gwen Russell (2nd term)

REPRESENTATIVES OF THE GRADUATE STUDENTS



Philip Dack (acclamation)

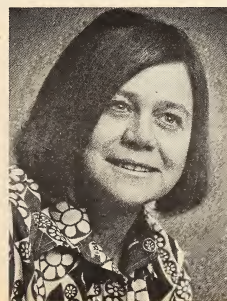


Barry Mitchell

PART-TIME UNDERGRADUATE STUDENT MEMBERS



Arlene Dick



Norma Grindal (2nd term)

Accommodation for rent

Sublet from May 15 to Aug. 15; Avenue Rd. near St. Clair; large modern apartment with living room, three bedrooms, two bathrooms, fully equipped with appliances and modern furniture; 9th floor, facing east and south; nice view, 10 minutes from campus by direct bus line. \$350/month. 928-3162 or 483-9477.

Paris apartment; ideal central location, quiet, available July 1 for 10 months or longer; suitable for single person or couple only. For information contact Prof. V. E. Graham at 928-3168 or 481-9567.

Three-bedroom house, fully furnished, living room, dining room, kitchen and small effortless garden, in quiet district; five minutes from High Park and subway; opposite small park and close to tennis courts; May 1-July 31 or August 31, 1973. \$275/month. 928-6111 or 487-5075.

APRIL 5 DEADLINE

University of Toronto Bulletin is published by the University News Bureau, 45 Willocks Street. Except for bona fide emergencies, all material for the next issue should have been in the hands of the editor, Mrs. Winogene Ferguson (928-2102) by noon yesterday. The next editorial deadline is noon, April 5.

STAFF NOTES

Medicine

PROF. PHILIP SEEMAN was the Medical Research Council Visiting Professor at the University of British Columbia, lecturing to the Faculties of Medicine and Pharmaceutical Sciences on "The Medical Science of Transurgery" (March 14), on "Recent Advances in the Ultrastructure, Chemistry and Immunology of Cell Membranes" (March 14), on "The Membrane Actions of the Excitability-Controlling Drug" (March 15), and on "The Prediction of Anesthetic Potency" (March 16). Dr. Seeman's public lectures during this academic year have been at the Toronto Academy of Medicine on March 8: "Fundamental Actions of Anesthetics on Nerve Cells"; to the Faculty of Medicine, Queen's University, on March 5: "Actions of Narcotics"; to the Membrane Discussion Group on Oct. 18: "Ultrastructure of Membrane Lesions in Immune Damage"; to the Symposium of the International Society for Neurosciences, Houston, Texas, on Oct. 10: "The Hydrophobic Expansion Theory of Anesthesia"; to the 5th International Congress of Pharmacology, San Francisco, on July 26: "The Current Version of the Meyer-Ostergaard Rule"; to the Canadian Federation of Biological Societies, Laval University, on June 16: "The Membrane Ultrastructure of Complement- and Anesthetic-induced Lesions".

Education

PROF. RUTH SHAMES, Peter Briggs, and Alex Janesman attended a seminar on design education sponsored by the National Design Council in Ottawa, Jan. 19-21. Prof. Shames was one of four panel members leading a discussion on the general approach to design education. Mr. Briggs and Mr. Janesman took part in two group discussions on general, as opposed to specific, design education. Ruth Shames is a member of the education committee of the National Design Council.

H. D. Guttridge attended the Ontario Secondary Schools Headmasters' Council Conference in Toronto, January 24-26.

Physical & Health Education

PROF. K. A. W. WIPPER served as the general chairman of the First International Conference on Outdoor Education entitled "Wilderness Boundaries". The project, attended by nearly 600 delegates, took place at Camp Kandahar and the Forest Technical School and the Council of Outdoor Educators of Ontario was host from Sept. 28 to Oct. 1.

DR. JAMES D. McCLEMENTS was guest lecturer recently at the Ontario Soccer Association's Sport Medicine Seminar where he presented a paper "Goals: Sport and Learning".

Management Studies

PROF. JOHN CRISPO served as a panelist on the Regional Dialogue for High School students organized by the Office of Ad-

missions, on "Education and the Labour Market" on Jan. 9. On Jan. 18, he addressed the Annual President's meeting of the Niagara Falls Personnel Association. On Jan. 24, he also addressed the Personnel Association of Toronto Conference on "White Collar Unionism - Inevitable?" On Feb. 8, he addressed the Atlantic Council of Canada on "Canada's Trade Options," at Hart House. Also on Feb. 8, he addressed Management Section, Engineering Institute of Canada on "Management Challenges and Responses in Today's Society." On Feb. 19, he addressed Bell Canada Management Seminar on "Collective Bargaining and Inflation."

PROF. R. J. HOSSE participated in Management by Objective Seminar sponsored by the Faculty of Management Studies on Jan. 31. On Feb. 19, he presented a speech to Ontario Society of Training Directors entitled "Leadership for Effective Motivation." He was cross-appointed to the Faculty of Forestry for purpose of teaching courses in Organization Behavior, effective July 1, 1973. He participated on committee for competitive selection of papers to be presented at the meeting of the Eastern Academy of Management on May 10 and 11. He was appointed to the steering committee for the analysis of professional divisions of the Academy of Management. On March 14, he conducted a seminar on Leadership and Motivation for Industrial Relations Staff of the Toronto Post Office.

PROF. B. A. KALYANAN addressed a seminar at the Département d'Informatique, Université de Montréal on Feb. 22, on "Simulation Programs: An Alternative Approach to Experimentation" and visited the Quantitative Section at L'École de Hautes Études Commerciales.

PROF. G. D. QUIRBY was a member of a panel discussion "Limits to Economic Growth" on the CBC FM network on Feb. 25.

PROF. JOSHUA RONEN as co-author presented his paper entitled "Relevant Accounting" at the 19th Annual School of Management, University of California, on Feb. 9, in Los Angeles. He also presented his paper entitled "Accounting Aggregation and the Measurement of an Experimental Approach" on Feb. 16 at the School of Management of the State University of New York at Binghamton and on March 1, at the Graduate School of Business, New York University.

Aerospace Studies

DR. I. L. GLASS attended the Advisory Committee Meeting of the American Institute of Physics Information Program, Annual Meeting, on March 1973, Compton Board Room, American Institute of Physics, in order to discuss the present and future problems regarding the publication, accumulation, and transmission of scientific and engineering information. Dr. Glass gave a seminar on "Shock Waves and Mass" on the McGill University Seminars in Mechanics series on March 14.

the foreign imports. In the North American cars, for example, it was found that the smaller of the girls could not reach numerous secondary controls without unclipping both seat belts. Cases were found where she could not operate window vents, heating, defrosting, light and even wiper controls. The middle-sized female and the large male had little trouble. However, the air vent controls and the under-the-dash location of the parking brake release in a number of cars were not operable in the majority of the cars by any of the subjects, because of reach limitations.

It was also observed that in many instances the driver strap came across the side of the neck before crossing the chest to the lower anchor point, a problem that was acute for the smaller female.

"In view of our results" the group states, "it appears that more consideration should be given to the human size in design of automobiles. The problem of reaching controls will become acute for the smallest members of the driving population if there is no change in design when the importance of seat restraints is further emphasized and is, perhaps, made obligatory by provincial legislation."

Power level of U of T SLOWPOKE is increased by a factor of four

SLOWPOKE, the nuclear reactor that has been operating on the St. George Campus since June, 1971, has now been increased in power by a factor of four to a level of 20 kilowatts. This is approximately the heat equivalent of a dozen electric kettles.

The Atomic Energy Control Board, which regulates all uses of radioactive processes in Canada, has also given permission for the reactor to be operated on a 24 hours-a-day basis, with long periods of no direct supervision.

Permission to increase the flux of neutrons, the life blood of any nuclear chain reaction, from 2.5×10^{11} neutrons per square centimetre of core per second to 1.0×10^{12} was given by AEBC after careful review of 18 months of operation on the St. George Campus.

SLOWPOKE was developed by the Crown corporation, Atomic Energy of Canada Ltd., and is on loan to the University of Toronto for evaluation in a university setting. Its name stands for Safe Low Power Critical Experiment and it was designed with the needs of universities, hospitals and other smaller research establishments specifically in mind.

The core of the reactor, comprising 298 pencils of enriched uranium-aluminum alloy, is only nine inches in diameter and 10 in. high. The reactor is so designed that it has a "negative thermal coefficient." This means that, as the water surrounding the fuel elements gets warmer, the rate of the nuclear chain reaction decreases. Without such water, the reaction cannot proceed at all.

SLOWPOKE is situated in the Haultain Building, home of the Institute of Environmental Science and Engineering, but it is regarded as a campus-wide facility, open to use by workers in any relevant discipline.

Dr. Robert E. Jervis, professor of Chemical Engineering and chairman of the committee responsible for operating the reactor, stated in his first annual report that more than 1,000 irradiations had been performed in the first 12-month period. More than 25 project leaders in a wide variety of disciplines have made use of the reactor.

Its main functions have been in the production of short-lived radioisotopes, particularly for medical purposes, and the irradiation of specimens in what is known as neutron activation analysis.

Activation analysis is used in ecological work, as for example in the measurement of trace elements such as mercury and cadmium; in industry to monitor processes; in criminology to identify foreign materials or to determine the origin of dusts or to detect certain poisons; in archaeology and agriculture.

Experiments in undergraduate laboratories can be based on regular weekly (or daily) shipments of very short-lived radioisotopes or on procedures to be carried out by students working the reactor laboratory using common radiation analysis apparatus and receiving informal briefing on the experiments from SLOWPOKE staff as well as from supervising teaching assistants. Several departments are already conducting such experiments in regular teaching sessions but subject

to timetabling, more such undergraduate uses are welcomed. There has already been much enthusiasm generated in students using the facility.

As an extension of the total SLOWPOKE facility, and to permit many experiments with short-lived radioisotopes to be completed at the reactor site, a high resolution gamma-ray spectrometer has just been installed. The unit is intended for communal use by supervised students and experimenters having materials irradiated by SLOWPOKE neutrons. This instrument permits multi-element trace activation analyses to be completed rapidly within the SLOWPOKE laboratory, or on an immediate scrutiny to be made, on site, of the purity and amount of isotopes prepared in the reactor.

A commercial version of SLOWPOKE has been developed by AECL (Commercial Products Division) and is now being offered to organizations throughout the world.

Library move being planned

Completion of the Roberts Library has been delayed several months by the strike of elevator installers. Now that the strike has been ended, the Chief Librarian and his staff are making plans to move the Humanities and Social Sciences stack collection into the building as soon as elevators and escalators are ready. Moving the collection is expected to take about six weeks. To facilitate control of the move it will be necessary for the bookstack at both ends of the operation to close for two weeks during that period. However, there will be an attempt to maintain all other services, including the lending service, without interruption during the move.

Conditional discharge for T J McLaughlin

Thomas J. McLaughlin, convicted on Feb. 9 of obstructing a Metropolitan Toronto police officer in the execution of his duty during the eviction of students and others occupying Simcoe Hall on March 12, 1972, was given a conditional discharge, with probation for one year, in Provincial Court last week. Judge M. J. Cloney said that, although the offence was too serious a one to justify an absolute discharge, the present report was favourable to the accused and his good record made it possible for the court to grant conditional discharge.

Miss Purity II on display at CNE from April 2 to 4

Miss Purity II, the all-electric car built entirely in the laboratories of the Faculty of Applied Science and Engineering for last year's international Urban Vehicle Design Competition, will be on display at Electrical Showcases in the Automotive Building of the Canadian National Exhibition grounds, April 2-4. Normal show hours are noon till 9 p.m. but students will be admitted also between 10 a.m. and noon. Badges are available from Prof. I. W. Smith, 229 Mechanical Engineering.

EXHIBITIONS

Paintings of Mary Pratt, Etendale College. Until April 22.

Paintings by Gershon Iskowitz, exhibited at the Venice Biennale, 1972. Hart House Art Gallery until April 15. Monday, 11 a.m.-9 p.m.; Tuesday-Saturday, 11 a.m.-5 p.m.; Sunday, 2-5 p.m.

An exhibition of drawings and watercolours by Shelley Graves Shaw. New Academic Building, Victoria College. March 26 to April 15.

A display on Nicolaus Copernicus 1473-1543 has opened in the Sigmund Samuel foyer and the Science and Medicine lobby of the University Library. To mid-April.

"With a Painter's Eye." Portrait by Cavoc. Third floor rotunda, ROM. Until April 15.

Consideration to size of humans should be given by auto designers

Automobile designers should give more attention to the design of the humans the auto has to carry, three U of T students of Industrial Engineering have concluded, after studying the characteristics of 10 representative cars. Seven were North American models and three were imports.

The object of the study, part of their undergraduate course, was to find out how well or badly various cars were matched to humans of different sizes and how much mismatching affected the accessibility of primary and secondary controls. The students were Steffen Hermsdorf, Miss Nancy Ireland and Malcolm Norman. They were working under the supervision of Prof. P. J. Foley.

Two women, one five feet tall representing the smallest five per cent of the population and one of 5'4", being average, together with a 6-foot male, representing the tallest five per cent, were chosen. All were asked in turn to sit in the various cars, restrained by standard seat and shoulder belts. They were asked to go through a succession of movements, to test their ability to manipulate controls.

The group reported that the American cars were found to be less adaptable to the needs of smaller females than were

Ph.D. Orals

All members of the Graduate Faculty have the right to attend Ph.D. Oral Examinations.

Thursday, April 5

John Sum Chik Tung, Department of Mechanical Engineering, "Free Surface Flow Over Finite Bed Irregularities." Thesis supervisor: Prof. I. G. Corrie. Room 108, 16 Hart House Circle. 9:30 a.m.

Friday, April 6

Peter Richard Kirk, Department of Physics, "Aerodynamics of Rotating Oblate Spheroidal Hailstone Models." Thesis supervisor: Prof. R. Litt. Room 108, 16 Hart House Circle. 2 p.m.

Monday, April 16

Paul Dion, Department of Near Eastern Studies, "La Langue de Ya'udi. Esquisse grammaticale du dialecte Ya'udi dans la langue semitique du nord-ouest." Thesis supervisor: Prof. E. G. Clarke. Round Room, Massey College. 2 p.m.